

241300-55-T
Volume I

Engineering Report for
P-3/UWB Flight
Portage, Maine
28-29 June 1995

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PEAK POWER LEVEL SUMMARY

FOR P3 FLIGHT OF 29 Jun 1995, STARTING HOUR: 4

PASS	LINE	PEAK POWER (Watts)			
		X	L	C	P
----	----	-----	-----	-----	-----
2	31	0.0	0.0	0.0	1412.5
3		0.0	0.0	0.0	893.8
4	27	0.0	0.0	0.0	852.7
5	29	0.0	0.0	0.0	916.2
6	1	0.0	0.0	0.0	914.0
7	3	0.0	0.0	0.0	907.8
8	5	0.0	0.0	0.0	898.9
9	7	0.0	0.0	0.0	897.4
10	9	0.0	0.0	0.0	0.0
11	11	0.0	0.0	0.0	895.0
12	13	0.0	0.0	0.0	881.6
13	15	0.0	0.0	0.0	922.3
14	17	0.0	0.0	0.0	953.1
15	19	0.0	0.0	0.0	941.4
16	21	0.0	0.0	0.0	939.2
17		0.0	0.0	0.0	925.7
18	23	0.0	0.0	0.0	935.7
19	25	0.0	0.0	0.0	949.8
20		0.0	0.0	0.0	935.9
AVE:		-----	-----	-----	-----
		0.0	0.0	0.0	943.0

MISSION SUMMARY FOR:

DAY 4 PORTAGE MAINE

ON: 29 Jun 1995

PASS	LN #	S R L R				BRD	DP	ANGS		DES TRK	SAR LK	WAVE/POL CHANNEL:			
		W A T H	R E S T K	L O P	R			A N T	S C A T			D G T	1	2	3
-3	31	S	H	R	1	25.0	15.0	15.0	276	6	p VV	p VH	p HV	p HH	
	27	S	H	R	1	25.0	30.0	30.0	0	90	p VV	p VH	p HV	p HH	
5	29	S	H	R	1	25.0	30.0	30.0	315	45	p VV	p VH	p HV	p HH	
	1	S	R	1		25.0	30.0	30.0	10	100	p VV	p VH	p HV	p HH	
	3	S	H	R	1	25.0	30.0	30.0	220	310	p VV	p VH	p HV	p HH	
8	5	S	H	R	1	25.0	30.0	30.0	40	130	p VV	p VH	p HV	p HH	
0	7	S	H	R	1	25.0	30.0	30.0	250	340	p VV	p VH	p HV	p HH	
11	9	S	H	R	1	25.0	30.0	30.0	70	160	p VV	p VH	p HV	p HH	
12	11	S	H	R	1	25.0	30.0	30.0	280	10	p VV	p VH	p HV	p HH	
3	13	S	H	R	1	25.0	30.0	30.0	130	220	p VV	p VH	p HV	p HH	
4	15	S	H	R	1	25.0	30.0	30.0	315	45	p VV	p VH	p HV	p HH	
15	17	S	H	R	1	25.0	30.0	30.0	276	6	p VV	p VH	p HV	p HH	
16-17	19	S	H	R	1	25.0	30.0	30.0	0	90	p VV	p VH	p HV	p HH	
8	21	S	H	R	1	25.0	30.0	30.0	180	270	p VV	p VH	p HV	p HH	
19-20	23	S	H	R	1	25.0	30.0	30.0	0	90	p VV	p VH	p HV	p HH	
	25	S	H	R	1	25.0	30.0	30.0	180	270	p VV	p VH	p HV	p HH	

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Introduction

This report is written as an aid to users of the SAR data collected by the P-3/SAR on 28-29 June 1995. The data set generated consists of:

- HDDT #E1418
- HDDT #E1298
- HDDT #E1299
- Mission Plan disk, data, etc.
- Navigation disks
- Post Pass disks, markings
- Post Pass Summary Sheets

The report consists of a summary of each pass with crew comments included. Users of the data should review the pass summaries to be alerted for anomalies that may have occurred during the collection or noted by processing or analysis people. The appendix contains plots of critical parameters as a function of time.

This information is provided so that users can examine, in some detail the exact time and magnitude of observed anomalies. In addition users can go back to this data to determine if there is a correlation between "funnies" observed during processing and the engineering data. For example, if there was a blank strip in the image it might correlate with the transmitter power plot showing that the transmitter was off during that time.

All of the data shown in the plots is also recorded on the HDDT's in the Aux. data block and could be reproduced by the user. These plots are included in the appendix as a convenience for users of the data. The appendix is available upon request and thus is not included with this set of data.

Results

The mission progressed successfully through 9 passes in the Gibson's Woods area. On the 10th pass, however the radar system began having a problem attaining Master Lock on the High Density Digital Tape Recorders (HDDTR). The radar crew attempted to diagnose the problem by switching to the standby HDDTR, only to find that that unit exhibited the same problem. The radar crew had the flight crew orbit while several synthetic targets were run to further diagnose the problem. When the crew was unable to diagnose the problem by power-cycling the HDDTR electronics, the entire radar (except for the LTN-51 INS's) was power-cycled. This apparently cured the HDDTR Master Lock problem, which had never been seen before and has not been seen since, but the power-cycle of the computers resulted in the pass number for the remaining passes to be reset back to pass 1.

This flight contained all Lo-509 MHz bandwidth mode lines, which contains one error in that requirement 12 called for a Lo-180 MHz bandwidth chirp to be used, and a Lo-509 MHz was run instead. This pass was run as Pass 13 Line 15.

The Lo-509 MHz bandwidth chirp (215 MHz - 724 MHz) which was run contained the following notches:

243.0 MHz Center Frequency, 1 MHz wide
406.0 MHz Center Frequency, 1 MHz wide

Problems Noted

Note: Passes before the computer power-cycle are noted "1st set".
Passes after the computer power-cycle are noted "2nd set".

- HDDTR Master Lock errors - 1st set passes 10-17 (data questionable)
- Radar system power-cycled - After 1st set pass 17
- UWB Transmitter fault - 2nd set pass 2-3 (~25 seconds data lost)
- UWB Transmitter communications timeout - 2nd set pass 10 (no data lost)
- UWB Transmitter fault - 2nd set pass 13 (~24 seconds data lost)
- Lo-509 chirp run instead of Lo-180 - 2nd set pass 13
- Large RFI observed - 2nd set pass 17

Pass Summaries

UWB Portage, Maine Day #4
28-29 June 1995

1st Set Passes

Pass 1 Line 1

UWB Lo-509 Synthetic Target.

Pass 2 Line 53

UWB Lo-509. Target: Signature Array. The first set of passes were the low altitude ones of the mission. This pass was run at 4,000 ft. MSL altitude. Navigation was excellent, with GPS cross-track errors within .07 nm throughout the pass. Good pass.

Pass 3 Line 55

UWB Lo-509. Target: Signature Array. This pass was run at 3,500 ft MS altitude. Another excellent pass, with GPS cross-track errors less than .06 nm throughout the pass.

Pass 4 Line 51

UWB Lo-509. Target: Gibson's Woods + 330 degree aspect angle. The aircraft climbed to 5,500 ft MSL for this next set of passes. The LTN-51 INS appears to have been updated at the start map point. GPS cross-track error was almost .2 nm at the start map point, then decreased rapidly to below .15 nm 15 seconds after start map. The average GPS cross-track error for the pass was .085 nm. Good pass.

Pass 5 Line 49

UWB Lo-509. Target: Gibson's Woods + 150 degree aspect angle. Good pass, with GPS cross-track error between .05 nm and .08 nm throughout pass.

Pass 6 Line 47

UWB Lo-509. Target: Gibson's Woods + 0 degree aspect angle. Good pass, with GPS cross-track error starting out at less than .03 nm on one side of the track, and ending at less than .09 nm on the other side of the track. The radar crew noted that "RFI increased just after start map, especially on channels 2 and 4".

Pass 7 Line 45

UWB Lo-509. Target: Gibson's Woods + 180 degree aspect angle. Good pass, with GPS cross-track error starting out at less than .03 nm on one side of the track, and ending at less than .04 nm on the other side of the track.

Pass 8 Line 43

UWB Lo-509. Target: Gibson's Woods + 30 degree aspect angle. Good pass, with GPS cross-track error below .14 nm throughout the pass. It appears the INS was updated at the mid-pass point, and cross-track error decreased rapidly from there to the end of the pass to end up close to 0 nm. The radar crew noted that "RFI increased at start of map - did not adjust attenuation".

Pass 9 Line 41

UWB Lo-509. Target: Gibson's Woods + 210 degree aspect angle. Fair pass, with GPS cross-track error peaking at .17 nm at about the mid-pass point, where an apparent INS update then brought the error down rapidly to near zero for the remainder of the pass.

Pass 10 Line 39

UWB Lo-509. Target: Gibson's Woods + 60 degree aspect angle. Navigation was excellent and the UWB transmitter performed flawlessly this pass, however, the radar crew noted that the Control Computer reported a "Master Lock error" message and the Master Lock light on the Honeywell HDDTR DEU unit was flashing (it is usually on solid). Therefore, it is suspect if the data got onto the tape this pass.

Pass 11 Line 37

UWB Lo-509. Target: Signature Array. Navigation and transmitter performance excellent this pass, but tape recorder problems persisted. The radar crew noted "Same master lock warning. Power-cycled recorders after pass".

Pass 12 Line 35

UWB Lo-509. Target: Gibson's Woods + 90 degree aspect angle. Navigation and transmitter performance excellent this pass, but tape recorder problems persisted. The radar crew noted "Still problems with master lock. Loosing lock - intermittent thru first 1/2 of pass. Will select (other HDDT recorder) #2 next pass".

Pass 13 Line 33

UWB Lo-509. Target: Calibration Array/Cedar Swamp Empty/Site 5. No transmitter problems this pass, but GPS cross-track error started out at .1 nm and increased throughout the pass to end at a little over .15 nm at end map point. Also, tape recorder problems persisted. The radar crew noted "Did not get master lock on (HDDT recorder) #2. Switched to (HDDT recorder) #1 with 9.9 nm to go. Master lock still intermittent".

Pass 14 Line 33

UWB Lo-509 Synthetic Target. A synthetic target was run and recorded in and attempt to diagnose the tape recorder master lock problems. The recorders still would not master lock.

Pass 15 Line 31

UWB Lo-509. Target: Signature Array + 0 degree aspect angle. Pass was aborted less than 25% complete when the Control Computer program abnormally halted. While the flight crew orbited the aircraft, the radar crew powered-down the DEU and re-seated some of the boards within it. This pass was repeated after the system power-cycle as passes 2-3. This pass is also the first of a series of Day #1 passes which were being re-run. This was Day #1 requirement 22. The requirement number printed on the post-pass sheet and stored in the HDDT Auxiliary data block denotes Day #1 requirements by prefixing a 1 to the Day #1 requirement number. This pass was intended to satisfy Day #1 requirement number 22, hence it's requirement number was 122.

Pass 16 Line 31

UWB Lo-509 Synthetic Target. Another synthetic target was run and recorded in an attempt to diagnose the tape recorder master lock problems. The recorders still would not master lock.

Pass 17 Line 53

UWB Lo-509 Synthetic Target. Another synthetic target was run and recorded in an attempt to diagnose the tape recorder master lock problems. The recorders still would not master lock. The radar crew reported "Bad News - Re-booted (i.e. power cycled) entire system in hopes that problem will be solved".

NOTE: The power-cycle resulted in the pass number being set back to pass 1.

2nd Set Passes

Pass 1 Line 53

UWB Lo-509 Synthetic Target. Another synthetic target was run and recorded. Radar crew reported "master lock engaged - seems OK". Target passes resumed.

Pass 2-3 Line 31

UWB Lo-509. Target: Signature Array + 0 degree aspect angle. The aircraft was "dumped" right on top of the start map point. The radar crew scrambled to adjust the receive attenuators properly through the first 50 seconds of mapping. Just after the attenuators were adjusted, the UWB transmitter faulted with a "saturated power" fault. It was power-cycled and brought back on-line at the mid-pass point, where it continued the remainder of the pass without further excitement. GPS cross-track error started out at .05 nm and climbed steadily throughout the pass to end at .11 nm. Not that good of a pass, which was not repeated. This was Day #1 requirement 22.

Pass 4 Line 27

UWB Lo-509. Target: IE. Good pass, with GPS cross-track error within .14 nm throughout the pass and no UWB Transmitter faults. An in-flight experiment was made on this pass in that the bomb-bay doors of the aircraft were open during the pass. This was Day #1 requirement 17.

Pass 5 Line 29

UWB Lo-509. Target: Portage Lake, St. Peter's Field, open trihedral. Good pass, with GPS cross-track errors less than .095 nm throughout pass and no UWB Transmitter faults. This was Day #1 requirement 19.

Pass 6 Line 1

UWB Lo-509. Target: Gibson's Woods + 330 degree aspect angle. Good pass, with GPS cross-track errors below .14 nm throughout the pass, and no UWB Transmitter faults.

Pass 7 Line 3

UWB Lo-509. Target: Gibson's Woods + 180 degree aspect angle. Good pass, with GPS cross-track errors below .10 nm throughout the pass, and no UWB Transmitter faults.

Pass 8 Line 5

UWB Lo-509. Target: Gibson's Woods + 0 degree aspect angle. Good pass, with GPS cross-track errors below .07 nm throughout the pass, and no UWB Transmitter faults.

Pass 9 Line 7

UWB Lo-509. Target: Gibson's Woods + 210 degree aspect angle. Fair pass. GPS cross-track error climbed to .17 nm, and then it appears that the LTN-51 INS was updated. Cross-track error dropped sharply to near zero around mid-pass, then climbed slowly to end the pass at about .025 nm. The radar crew noted "large signal (RFI) around 5 nm to go (to end map point)".

Pass 10 Line 9

UWB Lo-509. Target: Gibson's Woods + 30 degree aspect angle. Good pass, with GPS cross-track errors below .1 nm throughout the pass. The UWB Transmitter-to-Control Computer communications had a problem, but the radar crew noted: "UWB timeout error but Tx shows OK". Even though the pass summary and power plots show no power, the power was indeed on. The 15 second RFI sniff at the end of pass was probably not performed.

Pass 11 Line 11

UWB Lo-509. Target: Gibson's Woods + 240 degree aspect angle. Good pass, with GPS cross-track errors below .1 nm throughout the pass, and no UWB Transmitter faults.

Pass 12 Line 13

UWB Lo-509. Target: Gibson's Woods + 90 degree aspect angle. Good pass, with GPS cross-track errors below .12 nm throughout the pass, and no UWB Transmitter faults.

Pass 13 Line 15

UWB Lo-509. Target: Portage Lake, St. Peter's Field, open trihedral. A transmitter fault occurred around the start map point on this pass. The radar crew power-cycled the transmitter and had it back on-line approximately 24 seconds after start of mapping. Therefore, about the first 10% of the pass was "bad". GPS cross-track error during the pass was excellent, within .1 nm throughout the pass. Fair pass, depending on where the targets were situated in the pass in the along track direction. One additional problem with this pass is that the requirement called for a Lo-180 MHz bandwidth chirp to be used on this line. This would have been the only 180 MHz bandwidth line of the mission.

Pass 14 Line 17

UWB Lo-509. Target: Calibration Array, Empty Cedar Swamp, Site 5. GPS cross-track error started out on this pass at -0.2 nm. The navigator apparently updated the LTN-51 INS either at or just after start map, and GPS cross-track error quickly decreased to close to zero, then began to drift off normally to end at about +0.1 nm. Looks like the first 15%-20% of the pass had a cross-track error in excess of .15 nm. The UWB transmitter operated without fault. Fair pass.

Pass 15 Line 19

UWB Lo-509. Target: Presque Isle Clutter Strip 2. Good pass, with GPS cross-track error within .11 nm throughout pass, and no UWB transmitter faults.

Pass 16-17 Line 21

UWB Lo-509. Target: Presque Isle Clutter Strip 2 (back side). Fair pass, with GPS cross-track errors starting out a .11 nm and ending at .23 nm. About half the pass was run with cross-track error in excess of .15 nm. No transmitter faults. The radar crew reported, "Large RFI spike at start of each channel". From the INS cross-track error plot, it looks like the Navigator updated the LTN-51 INS near the end map point, because the INS cross-track error "jumped" from 0 nm to -0.4 nm. The radar crew again reported, "Large RFI spike at start of channels with 7 nm to go in mapping".

Pass 18 Line 23

UWB Lo-509. Target: Presque Isle Clutter Strip 3. Good pass, with GPS cross-track error within .08 nm throughout the pass and no UWB transmitter faults.

Pass 19-20 Line 25

UWB Lo-509. Target: Presque Isle Clutter Strip 3 (back side). Good pass, with GPS cross-track error within .09 nm throughout pass and no UWB transmitter faults. This was the last pass of the mission.

**Mission Summaries
(1st Set Passes)**

Differential GPS Navigation Summary for Portage, ME June 28, 1995

Xtk. and Alt. Error (feet)

Xtk. > 0 = Left of Track; Alt. > 0 = Higher Alt.

	Alt. Mean	Alt. St. Dev.	Xtk. Mean	Xtk. St. Dev.
Pass 2	82.38	5.53	304.48	21.13
Pass 3	-8.66	4.13	249.17	36.47
Pass 4	124.62	4.36	534.91	157.46
Pass 5	124.56	7.42	-237.92	98.27
Pass 6	128.79	2.86	128.39	186.31
Pass 7	126.81	4.18	125.07	135.18
Pass 8	135.17	4.39	551.07	165.94
Pass 9	130.82	3.36	787.35	429.11
Pass 10	132.1	3.51	-266.78	9.16
Pass 11	131.28	2.98	3.62	49.41
Pass 12	130.45	3.27	-571.59	42.1
Pass 13	134.67	1.53	-806.23	180.96

NORMALIZED AVE POWER LEVEL SUMMARY
(TO: Max Groundspeed & 2000 Hz)

FOR P3 FLIGHT OF 29 Jun 1995, STARTING HOUR: 1

NOTE: X and L band transmitter power levels may vary if the gain of the RF pulse was not adjusted for a radar configuration change. Consult the Mission Summary sheet for details.

CLASS LINE		POWER (dBm)								GNDSPD (k	
		X		L		C		P			
----	----	-----		-----		-----		-----		-----	
2	53	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.4		.05	253.1
3	55	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.3		.05	242.7
4	51	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.2		.05	248.5
5	49	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.1		.04	251.5
6	47	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.2		.05	249.5
7	45	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.1		.05	250.7
8	43	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.1		.05	247.3
9	41	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.1		.02	254.3
10	39	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.1		.05	248.8
11	37	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.2		.02	248.3
12	35	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.2		.05	249.6
13	33	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.3		.05	251.5
15	31	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.2		.05	256.3
VE:		-----		-----		-----		-----			
		-70.0	0.00	-70.0	0.00	-70.0	0.00	46.2		.04	

PEAK POWER LEVEL SUMMARY

FOR P3 FLIGHT OF 29 Jun 1995, STARTING HOUR: 1

PASS	LINE	PEAK POWER (Watts)			
----	----	X	L	C	P
----	----	-----	-----	-----	-----
2	53	0.0	0.0	0.0	837.8
3	55	0.0	0.0	0.0	808.4
4	51	0.0	0.0	0.0	786.7
5	49	0.0	0.0	0.0	779.2
6	47	0.0	0.0	0.0	788.0
7	45	0.0	0.0	0.0	778.9
8	43	0.0	0.0	0.0	767.5
9	41	0.0	0.0	0.0	775.6
10	39	0.0	0.0	0.0	783.2
11	37	0.0	0.0	0.0	795.2
12	35	0.0	0.0	0.0	801.6
13	33	0.0	0.0	0.0	804.8
15	31	0.0	0.0	0.0	788.5
AVE:		-----	-----	-----	-----
		0.0	0.0	0.0	792.0

MISSION SUMMARY FOR:

DAY 4 PORTAGE MAINE

ON: 28 Jun 1995

ASS	LN #	S W T H	R E S K	L O P	R	BRD A N T	DP S C A	ANGS D T G	DES TRK	SAR LK	WAVE/POL CHANNEL:							
											1	2	3	4				
	53	S	H	R	1	25.0	10.0	10.0	276	6	p	VV	p	VH	p	HV	p	HH
	55	S	H	R	1	25.0	8.0	8.0	276	6	p	VV	p	VH	p	HV	p	HH
4	51	S	H	R	1	25.0	15.0	15.0	10	100	p	VV	p	VH	p	HV	p	HH
	49	S	H	R	1	25.0	15.0	15.0	190	280	p	VV	p	VH	p	HV	p	HH
	47	S	H	R	1	25.0	15.0	15.0	40	130	p	VV	p	VH	p	HV	p	HH
7	45	S	H	R	1	25.0	15.0	15.0	220	310	p	VV	p	VH	p	HV	p	HH
°	43	S	H	R	1	25.0	15.0	15.0	70	160	p	VV	p	VH	p	HV	p	HH
	41	S	H	R	1	25.0	15.0	15.0	250	340	p	VV	p	VH	p	HV	p	HH
10	39	S	H	R	1	25.0	15.0	15.0	100	190	p	VV	p	VH	p	HV	p	HH
11	37	S	H	R	1	25.0	12.0	12.0	276	6	p	VV	p	VH	p	HV	p	HH
2	35	S	H	R	1	25.0	15.0	15.0	130	220	p	VV	p	VH	p	HV	p	HH
3	33	S	H	R	1	25.0	15.0	15.0	276	6	p	VV	p	VH	p	HV	p	HH
15	31	S	H	R	1	25.0	15.0	15.0	276	6	p	VV	p	VH	p	HV	p	HH

MISSION SUMMARY FOR:

DAY 4 PORTAGE MAINE

ON: 28 Jun 1995

PASS(S)	LINE	HDDT	MOCOMP COUNT	UCT TIME	PASS LEN	TGT ALT
-----	----	----	-----	-----	-----	-----
	53	E1416	0047206 - 0073874	22:44:20 - 22:46:59	(159)	660
	55	E1416	0101759 - 0129388	23:00:51 - 23:03:36	(165)	660
4	51	E1416	0159434 - 0186251	23:14:08 - 23:16:48	(160)	770
5	49	E1416	0214429 - 0241099	23:24:49 - 23:27:28	(159)	770
	47	E1416	0264112 - 0291778	23:36:20 - 23:39:05	(165)	770
	45	E1416	0316292 - 0343958	23:46:23 - 23:49:08	(165)	770
8	43	E1416	0374647 - 0401972	23:57:53 - 00:00:36	(163)	770
	41	E1417	0435984 - 0462650	00:10:32 - 00:13:11	(159)	770
0	39	E1417	0499497 - 0526833	00:24:01 - 00:26:44	(163)	770
11	37	E1417	0551847 - 0578847	00:34:43 - 00:37:24	(161)	660
12	35	E1417	0603360 - 0630370	00:46:01 - 00:48:42	(161)	770
3	33	E1417	0651741 - 0678382	00:57:38 - 01:00:17	(159)	800
15	31	E1418	0723775 - 0703729	01:12:57 - 01:13:27	(30)	660

Navigation Summary Sheet
For P3 Flight of June 28 Starting at 22:44 (UCT)

Pass No	Time (UCT) (hr:mn:sc)	GPS	XTE	Comp.	Inc.	Ang.	Baro.	Alt.	Gndspeed	
		Mean (nm)	S.D. (nm)	Mean (°)		S.D. (°)	Mean (ft)	S.D. (ft)	INS (kt)	GPS (kt)
2	22:44:20	.03	.01	0.0		0.0	3927.2	6.9	253.0	251.1
3	23:00:55	.03	.02	0.0		0.0	3337.4	4.1	242.6	242.3
4	23:14:09	.09	.03	0.0		0.0	5421.5	7.2	248.5	249.2
5	23:24:49	-.06	.01	0.0		0.0	5414.8	5.9	251.5	250.7
6	23:36:20	.03	.03	0.0		0.0	5426.6	4.3	249.6	250.7
7	23:46:25	-.01	.03	0.0		0.0	5422.3	4.9	250.7	249.9
8	23:57:55	.09	.05	0.0		0.0	5430.1	5.6	247.3	249.7
9	00:10:35	.09	.06	0.0		0.0	5428.6	4.2	254.3	252.8
10	00:24:02	-.04	.01	0.0		0.0	5424.2	4.3	248.7	249.4
11	00:34:47	-.02	0.00	0.0		0.0	5430.6	3.4	248.3	250.2
12	00:46:02	-.08	.01	0.0		0.0	5421.9	3.9	249.5	247.0
13	00:57:40	-.14	.02	0.0		0.0	5436.3	2.4	251.5	254.5
15	01:13:01	-.01	.02	0.0		0.0	5439.4	2.9	256.4	256.0
15	01:13:30	.02	0.00	0.0		0.0	5434.0	0.0	257.0	256.2

Navigation Summary Sheet
For P3 Flight of June 28 Starting at 22:44 (UCT)

Pass No	Time (UCT) (hr:mn:sc)	INS XTE		INS/GPS Lat. Dif.		INS/GPS Lon. Dif.		INS DR. RATE	
		Mean (nm)	S.D. (nm)	Mean (ft)	S.D. (ft)	Mean (ft)	S.D. (ft)	LAT (kt)	LON (kt)
2	22:44:20	-.02	.04	486.7	308.8	-1029.7	444.4	.6	-3.3
3	23:00:55	-.01	.03	630.6	328.2	-446.1	300.3	-.8	-.9
4	23:14:09	-.11	.05	-1495.2	318.7	25.3	400.0	-.4	3.8
5	23:24:49	0.00	0.00	-562.0	484.7	427.6	286.9	-1.4	1.5
6	23:36:20	-.10	0.00	-259.0	542.8	-615.0	413.2	-4.2	2.5
7	23:46:25	0.00	0.00	50.6	463.8	-646.4	344.2	-1.5	-1.8
8	23:57:55	-.05	.07	-572.8	494.2	-192.0	362.6	3.6	-1.4
9	00:10:35	-.09	.09	719.3	764.1	33.2	401.2	-6.6	.3
10	00:24:02	0.00	0.00	506.2	385.4	-3211.3	415.6	.7	.8
11	00:34:47	-.08	.04	-230.9	307.4	-336.4	307.1	-1.3	.4
12	00:46:02	-.01	.02	301.4	437.3	-49.3	436.1	-1.6	2.8
13	00:57:40	-.07	.05	-1015.1	345.2	819.8	351.7	-.7	1.7
15	01:13:01	.09	.03	372.8	220.1	128.4	350.3	1.5	**.*
15	01:13:30	0.00	0.00	170.2	0.0	-244.6	0.0	0.0	0.0

**Mission Summaries
(2nd Set Passes)**

Differential GPS Navigation Summary for Portage, ME June 28, 1995

Xtk. and Alt. Error (feet)

Xtk. > 0 = Left of Track; Alt. > 0 = Higher Alt.

	Alt. Mean	Alt. St. Dev.	Xtk. Mean	Xtk. St. Dev.
Pass 2-3	181.39	3.99	565.27	25.97
Pass 4	352.8	3.62	590.7	189.03
Pass 5	304.18	3.02	-423.14	83.2
Pass 6	110.43	3.71	791.15	133.25
Pass 7	88.78	3.43	164.19	143.94
Pass 8	93379	1.98	-173.72	70.57
Pass 9	87.48	2.93	516.42	511.98
Pass 10	84.17	1.95	-20.65	116.07
Pass 11	89.31	2.85	498.37	24.04
Pass 12	77.35	2.67	459.21	121.28
Pass 13	98.31	2.59	-105.31	63.05
Pass 14	95.52	3.42	101.11	543.75
Pass 15	98.16	3.34	-698.37	41.31
Pass 16-17	26.12	2.07	1033.54	224.11
Pass 18	93.93	1.98	-386.06	30.38
Pass 19-20	71.53	2.58	401.5	111.5

NORMALIZED AVE POWER LEVEL SUMMARY
(TO: Max Groundspeed & 2000 Hz)

FOR P3 FLIGHT OF 29 Jun 1995, STARTING HOUR: 4

NOTE: X and L band transmitter power levels may vary
if the gain of the RF pulse was not adusted for a
radar configuration change. Consult the Mission
Summary sheet for details.

ASS	LINE	POWER (dBm)								GNDSPD (I)
		X		L		C		P		
----	----	-----	-----	-----	-----	-----	-----	-----	-----	
2	31	-70.0	0.00	-70.0	0.00	-70.0	0.00	48.7	0.00 252.0	
3		-70.0	0.00	-70.0	0.00	-70.0	0.00	46.7	.68 250.0	
4	27	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.5	.03 243.0	
5	29	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.8	.05 244.0	
6	1	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.8	.03 249.0	
7	3	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.8	.05 253.0	
8	5	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.7	.05 248.0	
9	7	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.7	.05 251.0	
10	9	-70.0	0.00	-70.0	0.00	-70.0	0.00	-70.0	0.00 247.0	
11	11	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.7	.04 248.0	
12	13	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.7	.06 251.0	
13	15	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.12 251.0	
14	17	-70.0	0.00	-70.0	0.00	-70.0	0.00	47.0	.03 251.0	
15	19	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.05 247.0	
16	21	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.04 247.0	
17		-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.05 245.0	
18	23	-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.04 252.0	
19	25	-70.0	0.00	-70.0	0.00	-70.0	0.00	47.0	.04 251.0	
20		-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.03 250.0	
VE:		-----	-----	-----	-----	-----	-----	-----	-----	
		-70.0	0.00	-70.0	0.00	-70.0	0.00	46.9	.08	

Pre-pass Data Sheet

Date: 6/28/95

Line No.: 45

Miss Title: DAY 4 PORTAGE MAI

Aircraft positions

Target: GW

	Latitude	Longitude	No.	Latitude	Longitude	Altitude
FROM:	N 57:58.16	W 48:11.15	No.	N 46:47.63	W 68:24.34	770 ft
Line-up:	N 46:54.93	W 68:09.83	Start	N 46:47.63	W 68:24.34	770 ft
Start:	N 46:45.76	W 68:21.10	Main	N 46:43.81	W 68:29.03	770 ft
End:	N 46:38.10	W 68:30.45	Last	N 46:39.98	W 68:33.70	770 ft
TO:	N 33:07.12	W 81:07.40				

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB

Radar Collection mode: Stripmap

X Offset:	8.66 ft	Alt over tgt:	4730.00 ft	Des Trk:	220.07°
Cmp Grg:	2.90 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt:	4730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slr rng:	3.01 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strip Len Pad:	0.00 nmi		
Req Pndr:	0.00 ft	Beg Squint:	90.00°	End Squint:	90.00°
RgGtDlt:	0.00 ft	AdjGnd Scene:	5000.00 ft		

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CRL1U2A

Starting Frequency:	215.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec
Notches:		Predistortion Type:	UWB Amplitude fix
1) 1 MHz Bandwidth Centered @	242.9 MHz, Depth @ 9.3 dB		
2) 1 MHz Bandwidth Centered @	406 MHz, Depth @ 9.3 dB		

Receive Chirp File: CRL1N0A

Starting Frequency:	1405.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec

Channel Settings:

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	2.75 nmi
Ch 2:	p VH	15.00°	15.00°	2.75 nmi
Ch 3:	p HV	15.00°	15.00°	2.75 nmi
Ch 4:	p HH	15.00°	15.00°	2.75 nmi

Pre-pass Data Sheet

Date: 6/28/95

Line No.: 47

Miss Title: DAY 4 PORTAGE MAI

Aircraft positions

Target: GW

	Latitude	Longitude	No.	Latitude	Longitude	Altitude
FROM:	N 33:10.49	W 81:13.86	No.	N 46:39.98	W 68:33.70	770 ft
Line-up:	N 46:32.64	W 68:48.09	Start	N 46:39.98	W 68:33.70	770 ft
Start:	N 46:41.84	W 68:36.93	Main	N 46:43.81	W 68:29.03	770 ft
End:	N 46:49.50	W 68:27.59	Last	N 46:47.63	W 68:24.34	770 ft
TO:	N 58:02.12	W 48:16.16				

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB

Radar Collection mode: Stripmap

X Offset:	8.67 ft	Alt over tgt:	4730.00 ft	Des Trk:	39.93°
Cmp Grg:	2.91 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt:	4730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slt rng:	3.01 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strip Len Pad:	0.00 nmi		
Req Pndr:	0.00 ft	Beg Squint:	90.00°	End Squint:	90.00°
RgGtDlt:	0.00 ft	AdjGnd Scene:	5000.00 ft		

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CRL1U2A

Starting Frequency:	215.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec
Notches:		Predistortion Type:	UWB Amplitude fix
1) 1 MHz Bandwidth Centered @	242.9 MHz, Depth @ 9.3 dB		
2) 1 MHz Bandwidth Centered @	406 MHz, Depth @ 9.3 dB		

Receive Chirp File: CRL1N0A

Starting Frequency:	1405.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec

Channel Settings:

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	2.75 nmi
Ch 2:	p VH	15.00°	15.00°	2.75 nmi
Ch 3:	p HV	15.00°	15.00°	2.75 nmi
Ch 4:	p HH	15.00°	15.00°	2.75 nmi

Pre-pass Data Sheet

Date: 6/28/95

Line No.: 49

Miss Title: DAY 4 PORTAGE MAI

Aircraft positions

Target: GW

	Latitude	Longitude	No.	Latitude	Longitude	Altitude
FROM:	N 62:58.39	W 62:09.31	No.	N 46:48.73	W 68:27.76	770 ft
Line-up:	N 47:00.03	W 68:20.55	Start	N 46:48.73	W 68:27.76	770 ft
Start:	N 46:48.22	W 68:23.60	Main	N 46:43.81	W 68:29.03	770 ft
End:	N 46:38.38	W 68:26.12	Last	N 46:38.88	W 68:30.29	770 ft
TO:	N 30:13.70	W 71:42.81				

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB

Radar Collection mode: Stripmap

X Offset:	6.91 ft	Alt over tgt:	4730.00 ft	Des Trk:	190.02°
Cmp Grg:	2.90 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt:	4730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slr rng:	3.01 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strip Len Pad:	0.00 nmi		
Req Pndr:	0.00 ft	Beg Squint:	90.00°	End Squint:	90.00°
RgGtDlt:	0.00 ft	AdjGnd Scene:	5000.00 ft		

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CRL1U2A

Starting Frequency:	215.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec
Notches:		Predistortion Type:	UWB Amplitude fix
1) 1 MHz Bandwidth Centered @	242.9 MHz, Depth @ 9.3 dB		
2) 1 MHz Bandwidth Centered @	406 MHz, Depth @ 9.3 dB		

Receive Chirp File: CRL1N0A

Starting Frequency:	1405.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec

Channel Settings:

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	2.75 nmi
Ch 2:	p VH	15.00°	15.00°	2.75 nmi
Ch 3:	p HV	15.00°	15.00°	2.75 nmi
Ch 4:	p HH	15.00°	15.00°	2.75 nmi

Pre-pass Data Sheet

Date: 6/28/95

Line No.: 51

Miss Title: DAY 4 PORTAGE MAI

Aircraft positions

Target: GW

	Latitude	Longitude	No.	Latitude	Longitude	Altitude
FROM:	N 30:14.71	W 71:51.11				
Line-up:	N 46:27.57	W 68:37.46	Start	N 46:38.88	W 68:30.29	770 ft
Start:	N 46:39.39	W 68:34.45	Main	N 46:43.81	W 68:29.03	770 ft
End:	N 46:49.23	W 68:31.92	Last	N 46:48.73	W 68:27.76	770 ft
TO:	N 62:59.40	W 62:17.53				

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB

Radar Collection mode: Stripmap

X Offset:	6.90 ft	Alt over tgt:	4730.00 ft	Des Trk:	9.98°
Cmp Grg:	2.91 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt:	4730.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slr rng:	3.01 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strap Len Pad:	0.00 nmi		
Req Pndr:	0.00 ft	Beg Squint:	90.00°	End Squint:	90.00°
RgGtDlt:	0.00 ft	AdjGnd Scene:	5000.00 ft		

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CTL1U2A

Starting Frequency:	215.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec
Notches:		Predistortion Type:	UWB Amplitude fix
1) 1 MHz Bandwidth Centered @	242.9 MHz, Depth @ 9.3 dB		
2) 1 MHz Bandwidth Centered @	406 MHz, Depth @ 9.3 dB		

Receive Chirp File: CRL1N0A

Starting Frequency:	1405.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec

Channel Settings:

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	15.00°	15.00°	2.75 nmi
Ch 2:	p VH	15.00°	15.00°	2.75 nmi
Ch 3:	p HV	15.00°	15.00°	2.75 nmi
Ch 4:	p HH	15.00°	15.00°	2.75 nmi

Pre-pass Data Sheet

Date: 6/28/95

Line No.: 53

Miss Title: DAY 4 PORTAGE MAI

Aircraft positions

Target: SIG

	Latitude	Longitude	No.	Latitude	Longitude	Altitude
FROM:	N 42:35.75	W 45:47.43				
Line-up:	N 46:40.05	W 68:06.22	Start	N 46:44.44	W 68:23.07	660 ft
Start:	N 46:41.34	W 68:23.54	Main	N 46:44.97	W 68:30.30	660 ft
End:	N 46:42.39	W 68:38.00	Last	N 46:45.49	W 68:37.53	660 ft
TO:	N 45:53.01	W 92:36.72				

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB

Radar Collection mode: Stripmap

X Offset:	26.72 ft	Alt over tgt:	3340.00 ft	Des Trk:	276.08°
Cmp Grg:	3.12 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt:	3340.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slr rng:	3.17 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strap Len Pad:	0.00 nmi		
Req Pndr:	0.00 ft	Beg Squint:	90.00°	End Squint:	90.00°
RgGtDlt:	0.00 ft	AdjGnd Scene:	5000.00 ft		

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CRL1U2A

Starting Frequency:	215.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec
Notches:		Predistortion Type:	UWB Amplitude fix
1) 1 MHz Bandwidth Centered @	242.9 MHz, Depth @ 9.3 dB		
2) 1 MHz Bandwidth Centered @	406 MHz, Depth @ 9.3 dB		

Receive Chirp File: CRL1N0A

Starting Frequency:	1405.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec

Channel Settings:

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	10.00°	10.00°	2.91 nmi
Ch 2:	p VH	10.00°	10.00°	2.91 nmi
Ch 3:	p HV	10.00°	10.00°	2.91 nmi
Ch 4:	p HH	10.00°	10.00°	2.91 nmi

Pre-pass Data Sheet

Date: 6/28/95

Line No.: 55

Miss Title: DAY 4 PORTAGE MAI

Aircraft positions

Target: SIG

	Latitude	Longitude	No.	Latitude	Longitude	Altitude
FROM:	N 42:35.56	W 45:47.53	No.	N 46:44.44	W 68:23.07	660 ft
Line-up:	N 46:39.84	W 68:06.25	Start	N 46:44.44	W 68:23.07	660 ft
Start:	N 46:41.13	W 68:23.57	Main	N 46:44.97	W 68:30.30	660 ft
End:	N 46:42.18	W 68:38.04	Last	N 46:45.49	W 68:37.53	660 ft
TO:	N 45:52.81	W 92:36.67				

Tgt Trk: 0.0° Vel: 0.0 knots

Radar data

Radar Mode: UWB

Radar Collection mode: Stripmap

X Offset:	28.36 ft	Alt over tgt:	2840.00 ft	Des Trk:	276.08°
Cmp Grg:	3.33 nmi	Ant Dep ang:	25.00°	Look:	Right
Cmp Alt:	2840.00 ft	Est time:	2:24 min	Resolution:	
Map Len:	10.00 nmi	MCP Slt rng:	3.36 nmi	Swath Width:	Single
Strip Len:	10.00 nmi	Strap Len Pad:	0.00 nmi		
Req Pndr:	0.00 ft	Beg Squint:	90.00°	End Squint:	90.00°
RgGtDlt:	0.00 ft	AdjGnd Scene:	5000.00 ft		

Pre-processor mode: Presum6

Chirp File Parameters:

Transmit Chirp File: CRL1U2A

Starting Frequency:	215.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec
Notches:		Predistortion Type:	UWB Amplitude fix
1) 1 MHz Bandwidth Centered @	242.9 MHz, Depth @ 9.3 dB		
2) 1 MHz Bandwidth Centered @	406 MHz, Depth @ 9.3 dB		

Receive Chirp File: CRL1N0A

Starting Frequency:	1405.0 MHz	Rate:	26.3 MHz/uSec
Sampling Frequency:	800.0 MHz	Length:	0.0 uSec

Channel Settings:

	Wv/Pol	Swth Cent Ang	Tgt Dep Ang	Starting Range
Ch 1:	p VV	8.00°	8.00°	3.11 nmi
Ch 2:	p VH	8.00°	8.00°	3.11 nmi
Ch 3:	p HV	8.00°	8.00°	3.11 nmi
Ch 4:	p HH	8.00°	8.00°	3.11 nmi

**Post-pass Data Sheets
(1st Set)**

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 1
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 179:21:50:27
Pass 1
Req.# 0

AIRCRAFT & CHANNEL DATA

<u>Altitude</u>			<u>CH 1</u>	<u>CH 2</u>	<u>CH 3</u>	<u>CH 4</u>
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9999 ft	Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18458 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	36.2°	36.2°	36.2°	36.2°
Des. trk:	10.0°	Far Rng Dep:	17.6°	17.6°	17.6°	17.6°
Start Sq:	90.0°	Atten (dB):	58.0	57.0	58.0	57.0
End Sq:	90.0°					

WAYPOINTS

	<u>Latitude</u>	<u>Longitude</u>	
Line up:	N 46:27.53	W 68:37.06	Main Target: GW
Start:	N 46:39.34	W 68:34.06	Mocomp Point:
End:	N 46:49.18	W 68:31.53	Lat: N 46:43.81
			Long: W 68:29.03
From:	N 30:14.66	W 71:50.72	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 62:59.35	W 62:17.14	Alt: 771.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Groundspeed: Real -> 262.0 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	INS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL1U2A	RX Chirp Filename: CRL1N0A

<u>CAL POWER</u>	<u>ANT BIAS</u>	<u>Tape Footage</u>	<u>Drive no.</u>
X: 0.0	Elevation: 0.0°	Starting: 200 ft	(1)
L: 0.0	Azimuth: 0.0°	Ending: 334 ft	(1)
C: 0.0	Pitch: 0.0°		
P: -12.8			

<u>Vel Bias</u>	<u>CAL Atten</u>	<u>LINE Map Time (UCT)</u>
X: 2112.0	X: 63.8 dB	Start: 21:50:27
Y: 1874.0	L: 63.8 dB	End: 21:50:28
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

CPR (UCT): 00:00:00
Alt: 0 ft (GPS)

	<u>Start</u>	<u>End</u>
Ch 1:	14357 00003815h	15361 00003C01h
Ch 2:	14357 00003815h	15361 00003C01h
Ch 3:	14357 00003815h	15361 00003C01h
Ch 4:	14357 00003815h	15361 00003C01h

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 53
Mission: DAY 4 PORTAGE MAINE

Time: 179:22:44:20
Pass 2
Req.# 24

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	4000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	3927 ft s.d.=	8 Swath Ctr Ang:	10.0°	10.0°	10.0°	10.0°
Slt. rng:	19234 ft	Tgt Dep Ang:	10.0°	10.0°	10.0°	10.0°
Look:	Right	St rng (ft):	17700	17700	17700	1770
Depr Ang:	25.0°	Near Rng Dep:	12.8°	12.8°	12.8°	12.8°
Des. trk:	276.0°	Far Rng Dep:	6.7°	6.7°	6.7°	6.7°
Start Sq:	90.0°	Atten (dB):	60.0	65.0	60.0	65.0
End Sq:	90.0°	RMS Video (%FS)	6.3	5.0	4.4	5.6

WAYPOINTS

	Latitude	Longitude
Line up:	N 46:40.05	W 68:06.22
Start:	N 46:41.34	W 68:23.54
End:	N 46:42.39	W 68:38.00
From:	N 42:35.75	W 45:47.43
To:	N 45:53.01	W 92:36.72

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 253.1 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.4 fps (s.d.= 2.1)
Ave Fil Vel -> -.9 fps (s.d.= 1.5)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°		
L: -70.0	Azimuth: 0.0°	Starting: 350 ft	(1)
C: -70.0	Pitch: 0.0°	Ending: 1590 ft	(1)
P: 46.4			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 22:44:20
Y: 1874.0	L: 63.8 dB	End: 22:46:59
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 47206 0000B866h
End: 73874 0001B092h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 55
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:00:51
Pass 3
Req.# 25

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	3500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	3337 ft s.d.=	4 Swath Ctr Ang:	8.0°	8.0°	8.0°	8.0°
Slt. rng:	20406 ft	Tgt Dep Ang:	8.0°	8.0°	8.0°	8.0°
Look:	Right	St rng (ft):	18872	18872	18872	1887
Depr Ang:	25.0°	Near Rng Dep:	10.2°	10.2°	10.2°	10.2°
Des. trk:	276.0°	Far Rng Dep:	5.5°	5.5°	5.5°	5.5°
Start Sq:	90.0°	Atten (dB):	60.0	67.0	60.0	67.0
End Sq:	90.0°	RMS Video (%FS)	5.3	3.3	3.5	3.7

WAYPOINTS

Line_up:	N 46:39.84	W 68:06.25	Main Target:	SIG
Start:	N 46:41.13	W 68:23.57	Mocomp Point:	
End:	N 46:42.18	W 68:38.04	Lat:	N 46:44.97
			Long:	W 68:30.30
From:	N 42:35.56	W 45:47.53	Tgt Trk:	0.0
To:	N 45:52.81	W 92:36.67	Tgt Vel:	0.0
			Alt:	660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd:	Real	-> 242.7 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTLU2A	RX Chirp Filename:	CRL1N0A	

Ave Ref Vel -> -.3 fps (s.d.= 1.3)
Ave Fil Vel -> -1.0 fps (s.d.= 1.2)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting:	1605 ft (1)
L: -70.0	Azimuth: 0.0°	Ending:	2899 ft (1)
C: -70.0	Pitch: 0.0°		
P: 46.3			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 23:00:51
Y: 1874.0	L: 63.8 dB	End: 23:03:36
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 101759 00018D7Fh
End: 129388 0001F96Ch

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 51
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:14:08
Pass 4
Req.# 23

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5421 ft s.d.=	7 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	10.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	53.0	69.0	51.0	69.0
End Sq:	90.0°	RMS Video (%FS)	16.0	5.9	12.5	6.2

WAYPOINTS

Line_up:	N 46:27.57	W 68:37.46	Main Target:	GW
Start:	N 46:39.39	W 68:34.45	Mocomp Point:	
End:	N 46:49.23	W 68:31.92	Lat:	N 46:43.81
			Long:	W 68:29.03
From:	N 30:14.71	W 71:51.11	Tgt Trk:	0.0
To:	N 62:59.40	W 62:17.53	Tgt Vel:	0.0
			Alt:	770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd:	Real	-> 248.5 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTLU2A	RX Chirp Filename:	CRL1N0A	

Ave Ref Vel -> 2.8 fps (s.d.= 9.4)
Ave Fil Vel -> 2.6 fps (s.d.= 8.9)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 2914 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 4175 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.2			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 23:14:08
Y: 1874.0	L: 63.8 dB	End: 23:16:48
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 159434 000206CAh
End: 186251 0002078Bh

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 49
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:24:49
Pass 5
Req.# 22

AIRCRAFT & CHANNEL DATA

Altitude		CH 1	CH 2	CH 3	CH 4	
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5414 ft s.d.=	6 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	16740
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	190.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	51.0	59.0	49.0	59.0
End Sq:	90.0°	RMS Video (%FS)	17.3	10.5	14.0	12.6

WAYPOINTS

Line up:	N 47:00.03	W 68:20.55	Main Target: GW
Start:	N 46:48.22	W 68:23.60	Mocomp Point:
End:	N 46:38.38	W 68:26.12	Lat: N 46:43.81
			Long: W 68:29.03
From:	N 62:58.39	W 62:09.31	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 30:13.70	W 71:42.81	Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 251.5 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLEU2A	RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 1.1 fps (s.d.= 1.9)
Ave Fil Vel -> .7 fps (s.d.= 1.7)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 4187 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 5443 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.1			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 23:24:49
Y: 1874.0	L: 63.8 dB	End: 23:27:28
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 214429 0003459Dh
End: 241099 00034DCBh

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 47
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:36:20
Pass 6
Req.# 21

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5427 ft s.d.=	4 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	1674
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	40.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	54.0	64.0	53.0	64.0
End Sq:	90.0°	RMS Video (%FS)	15.1	13.4	11.4	13.8

WAYPOINTS

Line_up:	N 46:32.64	W 68:48.09	Main Target:	GW
Start:	N 46:41.84	W 68:36.93	Mocomp Point:	
End:	N 46:49.50	W 68:27.59	Lat:	N 46:43.81
			Long:	W 68:29.03
From:	N 33:10.49	W 81:13.86	Tgt Trk:	0.0
To:	N 58:02.12	W 48:16.16	Tgt Vel:	0.0
			Alt:	770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd:	Real	-> 249.5 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTLAU2A	RX Chirp Filename:	CRL1NOA	

Ave Ref Vel -> -4.3 fps (s.d.= 1.8)
Ave Fil Vel -> -4.5 fps (s.d.= 1.5)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting:	5459 ft (1)
L: -70.0	Azimuth: 0.0°	Ending:	6705 ft (1)
C: -70.0	Pitch: 0.0°		
P: 46.2			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 23:36:20
Y: 1874.0	L: 63.8 dB	End: 23:39:05
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 264112 000407B0h
End: 291778 0004073C2h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

28 Jun 1995
Tape: E1416

Post-line Data Sheet
Line 45
Mission: DAY 4 PORTAGE MAINE

Time: 179:23:46:23
Pass 7
Req.# 20

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5422 ft s.d.=	5 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	16740	16740	16740	1674
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	18.9°
Des. trk:	220.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	54.0	62.0	53.0	62.0
End Sq:	90.0°	RMS Video (%FS)	12.8	7.7	9.6	9.5

WAYPOINTS

Line up:	N 46:54.93	W 68:09.83	Main Target:	GW
Start:	N 46:45.76	W 68:21.10	Mocomp Point:	
End:	N 46:38.10	W 68:30.45	Lat:	N 46:43.81
			Long:	W 68:29.03
From:	N 57:58.16	W 48:11.15	Tgt Trk:	0.0
To:	N 33:07.12	W 81:07.40	Tgt Vel:	0.0
			Alt:	770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec	
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)		
Swath width:	Single	Ave Gndspd:	Real	->	250.7 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4		
Position Reference:	ON	GPS Vel/Pos Reference			
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft		
Range Gate Delta:	0.0 ft	Range Tracking is	OFF		
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF		
TX Chirp Filename:	CTLU2A	RX Chirp Filename:	CRL1N0A		

Ave Ref Vel -> -1.7 fps (s.d.= 1.8)
Ave Fil Vel -> -2.2 fps (s.d.= 1.8)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 6719 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 7978 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.1			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 23:46:23
Y: 1874.0	L: 63.8 dB	End: 23:49:08
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	316292	000410384h	CPA (UCT):	00:00:00
End:	343958	000530F96h	Alt:	0 ft (GPS)
			Lat:	N 0:00: 0
			Lon:	E 0:00: 0

29 Jun 1995
Tape: E1417

Post-line Data Sheet
Line 39
Mission: DAY 4 PORTAGE MAINE

Time: 180:00:24
Pass 10
Req.# 17

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	
Baro:	5424 ft s.d.=	4 Swath Ctr Ang:	15.0°	15.0°	15.0°	
Slt. rng:	18275 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	
Look:	Right	St rng (ft):	16740	16740	16740	
Depr Ang:	25.0°	Near Rng Dep:	18.9°	18.9°	18.9°	
Des. trk:	100.0°	Far Rng Dep:	9.5°	9.5°	9.5°	
Start Sq:	90.0°	Atten (dB):	50.0	62.0	49.0	
End Sq:	90.0°	RMS Video (%FS)	23.3	18.8	17.6	

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:49.57	W 68:52.67
Start:	N 46:47.52	W 68:35.45
End:	N 46:45.79	W 68:21.14
From:	N 47:05.43	W 92:53.14
To:	N 41:36.92	W 46:20.70

Main Target: GW

Mocomp Point:

Lat: N 46:43.81

Long: W 68:29.03

Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLU2A

Filter damping is Hi -> 10 s
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 248.8 k
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.9 fps (s.d.= 1.3)

Ave Fil Vel -> -.8 fps (s.d.= 1.1)

NML XMIT PWR

X: -70.0	Elevation:	0.0°
L: -70.0	Azimuth:	0.0°
C: -70.0	Pitch:	0.0°
P: 46.1		

ANE BIAS

Tape Footage

Drive r

Starting: 1468 ft (2)
Ending: 2737 ft (2)

Vel Bias

X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

CAL Atten

LINE Map Time (UCT)

Start: 00:24:01

End: 00:26:44

Mocomp Counters

Start: 499497 00079F29h
End: 526833 000809F1h

CPA (UCT): 00:00:00

Alt: 0 ft (GPS)

Lat: N 0:00: 0

Lon: E 0:00: 0

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 31
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 180:01:22:41
Pass 16
Req.# 122

AIRCRAFT & CHANNEL DATA

Altitude		Wave/Pol.:	CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft		p-VV	p-VH	p-HV	p-HH
Baro:	5500 ft	Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18700 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	17165	17165	17165	17165
Depr Ang:	25.0°	Near Rng Dep:	18.7°	18.7°	18.7°	18.7°
Des. trk:	276.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	68.0	68.0	68.0	68.0
End Sq:	90.0°					

WAYPOINTS

	Latitude	Longitude	
Line up:	N 46:40.19	W 68:06.19	Main Target: SIG
Start:	N 46:41.49	W 68:23.52	Mocomp Point:
End:	N 46:42.53	W 68:37.98	Lat: N 46:44.97
			Long: W 68:30.30
From:	N 42:35.87	W 45:47.36	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 45:53.14	W 92:36.76	Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is SLOW (350.0 kts)
Swath width: Single	Groundspeed: Real -> 350.0 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	INS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTL1U2A	RX Chirp Filename: CRL1N0A

CAL POWER	ANT BIAS	Tape Footage	Drive no.
X: 0.0	Elevation: 0.0°	Starting: 2395 ft	(1)
L: 0.0	Azimuth: 0.0°	Ending: 2627 ft	(1)
C: 0.0	Pitch: 0.0°		
P: 46.2			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 01:22:41
Y: 1874.0	L: 63.8 dB	End: 01:22:42
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

CPR (UCT): 00:00:00
Alt: 0 ft (GPS)

	Start	End
Ch 1:	736172 000B3BACH	739013 000B46C5h
Ch 2:	736172 000B3BACH	739013 000B46C5h
Ch 3:	736172 000B3BACH	739013 000B46C5h
Ch 4:	736172 000B3BACH	739013 000B46C5h

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 53
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 180:01:25:26
Pass 17
Req.# 0

AIRCRAFT & CHANNEL DATA

<u>Altitude</u>			<u>CH 1</u>	<u>CH 2</u>	<u>CH 3</u>	<u>CH 4</u>
Desired:	4000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	4001 ft	Swath Ctr Ang:	10.0°	10.0°	10.0°	10.0°
Slt. rng:	19234 ft	Tgt Dep Ang:	10.0°	10.0°	10.0°	10.0°
Look:	Right	St rng (ft):	17700	17700	17700	17700
Depr Ang:	25.0°	Near Rng Dep:	13.1°	13.1°	13.1°	13.1°
Des. trk:	276.0°	Far Rng Dep:	6.8°	6.8°	6.8°	6.8°
Start Sq:	90.0°	Atten (dB):	58.0	58.0	58.0	58.0
End Sq:	90.0°					

WAYPOINTS

	<u>Latitude</u>	<u>Longitude</u>
Line up:	N 46:40.05	W 68:06.22
Start:	N 46:41.34	W 68:23.54
End:	N 46:42.39	W 68:38.00
From:	N 42:35.75	W 45:47.43
To:	N 45:53.01	W 92:36.72

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Groundspeed: Real -> 262.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
INS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

<u>CAL POWER</u>	<u>ANT BIAS</u>
X: 0.0	Elevations: 0.0°
L: 0.0	Azimuths: 0.0°
C: 0.0	Pitch: 0.0°
P: -12.8	

<u>Tape Footage</u>	<u>Drive no.</u>
Starting: 2643 ft	(1)
Ending: 2807 ft	(1)

<u>Vel Bias</u>	<u>CAL Atten</u>
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

LINE Map Time (UCT)
Start: 01:25:26
End: 01:25:27

Mocomp Counters

CPR (UCT): 00:00:00
Alt: 0 ft (GPS)

	<u>Start</u>	<u>End</u>
Ch 1:	746864 000B6570h	748367 000B6B4Fh
Ch 2:	746864 000B6570h	748367 000B6B4Fh
Ch 3:	746864 000B6570h	748367 000B6B4Fh
Ch 4:	746864 000B6570h	748367 000B6B4Fh

**Post-pass Data Sheets
(2nd Set)**

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 53
Mission: DAY 4 PORTAGE MAINE
UWB Synthetic Target

Time: 180:01:40:47
Pass 1
Req.# 0

AIRCRAFT & CHANNEL DATA

<u>Altitude</u>			<u>CH 1</u>	<u>CH 2</u>	<u>CH 3</u>	<u>CH 4</u>
Desired:	4000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	4001 ft	Swath Ctr Ang:	10.0°	10.0°	10.0°	10.0°
Slt. rng:	19234 ft	Tgt Dep Ang:	10.0°	10.0°	10.0°	10.0°
Look:	Right	St rng (ft):	17700	17700	17700	17700
Depr Ang:	25.0°	Near Rng Dep:	13.1°	13.1°	13.1°	13.1°
Des. trk:	276.0°	Far Rng Dep:	6.8°	6.8°	6.8°	6.8°
Start Sq:	90.0°	Atten (dB):	68.0	68.0	68.0	68.0
End Sq:	90.0°					

WAYPOINTS

	<u>Latitude</u>	<u>Longitude</u>
Line_up:	N 46:40.05	W 68:06.22
Start:	N 46:41.34	W 68:23.54
End:	N 46:42.39	W 68:38.00
From:	N 42:35.75	W 45:47.43
To:	N 45:53.01	W 92:36.72

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 2
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Groundspeed: Real -> 262.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
INS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

<u>CAL POWER</u>	<u>ANT BIAS</u>
X: 0.0	Elevation: 0.0°
L: 0.0	Azimuth: 0.0°
C: 0.0	Pitch: 0.0°
P: 46.4	

<u>Tape Footage</u>	<u>Drive no.</u>
Starting: 2822 ft	(1)
Ending: 2975 ft	(1)

<u>Vel Bias</u>	<u>CAL Atten</u>
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

LINE Map Time (UCT)
Start: 01:40:47
End: 01:40:48

Mocomp Counters

CPR (UCT): 00:00:00
Alt: 0 ft (GPS)

	<u>Start</u>	<u>End</u>
Ch 1:	9021 0000233Dh	10356 00002874h
Ch 2:	9021 0000233Dh	10356 00002874h
Ch 3:	9021 0000233Dh	10356 00002874h
Ch 4:	9021 0000233Dh	10356 00002874h

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 31
Mission: DAY 4 PORTAGE MAINE

Time: 180:01:46:27
Pass 2
Req.# 122

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5479 ft s.d. =	3 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18700 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	17165	17165	17165	1716
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	276.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	68.0	68.0	68.0	68.0
End Sq:	90.0°	RMS Video (%FS)	5.8	5.5	2.0	5.5

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:40.19	W 68:06.19
Start:	N 46:41.49	W 68:23.52
End:	N 46:42.53	W 68:37.98
From:	N 42:35.87	W 45:47.36
To:	N 45:53.14	W 92:36.76

Main Target: SIG
Mocomp Point:
Lat: N 46:44.97
Long: W 68:30.30
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLMU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 252.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -1.0 fps (s.d.= .6)
Ave Fil Vel -> -1.4 fps (s.d.= .4)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°		
L: -70.0	Azimuth: 0.0°	Starting: 2989 ft	(1)
C: -70.0	Pitch: 0.0°	Ending: 4156 ft	(1)
P: 48.7			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 01:46:27
Y: 1874.0	L: 63.8 dB	End: 01:49:09
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 11247 00002BEFh
End: 17866 000045CAh

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 31
Mission: DAY 4 PORTAGE MAINE

Time: 180:01:47:06
Pass 3
Req.# 122

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	5500 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	5483 ft s.d.=	2 Swath Ctr Ang:	15.0°	15.0°	15.0°	15.0°
Slt. rng:	18700 ft	Tgt Dep Ang:	15.0°	15.0°	15.0°	15.0°
Look:	Right	St rng (ft):	17165	17165	17165	17165
Depr Ang:	25.0°	Near Rng Dep:	18.6°	18.6°	18.6°	18.6°
Des. trk:	276.0°	Far Rng Dep:	9.5°	9.5°	9.5°	9.5°
Start Sq:	90.0°	Atten (dB):	54.0	62.0	59.0	65.0
End Sq:	90.0°	RMS Video (%FS)	12.0	7.7	5.7	7.3

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:40.19	W 68:06.19
Start:	N 46:41.49	W 68:23.52
End:	N 46:42.53	W 68:37.98
From:	N 42:35.87	W 45:47.36
To:	N 45:53.14	W 92:36.76

Main Target: SIG

Mocomp Point:

Lat: N 46:44.97

Long: W 68:30.30

Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 660.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTL1U2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 250.6 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.3 fps (s.d.= .7)
Ave Fil Vel -> -.7 fps (s.d.= .6)

NML XMIT PWR

ANG BIAS

Tape Footage

Drive no.

X: -70.0	Elevation:	0.0°
L: -70.0	Azimuth:	0.0°
C: -70.0	Pitch:	0.0°
P: 46.7		

Starting:	2989 ft	(1)
Ending:	4156 ft	(1)

Vel Bias

CAN Atten

LINE Map Time (UCT)

X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

Start: 01:47:06
End: 01:49:09

Mocomp Counters

CPA (UCT): 00:00:00

Start: 17866 000045CAh
End: 38368 000095E0h

Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 27
Mission: DAY 4 PORTAGE MAINE

Time: 180:01:57:44
Pass 4
Req.# 117

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	10004 ft s.d.=	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	36.2°	36.2°	36.2°	36.2°
Des. trk:	0.0°	Far Rng Dep:	17.6°	17.6°	17.6°	17.6°
Start Sq:	90.0°	Atten (dB):	54.0	71.0	53.0	68.0
End Sq:	90.0°	RMS Video (%FS)	19.8	7.0	16.5	8.8

WAYPOINTS

Line_up:	N 46:27.13	W 68:32.80	Main Target: IE
Start:	N 46:39.12	W 68:32.80	Mocomp Point:
End:	N 46:49.12	W 68:32.80	Lat: N 46:44.12
			Long: W 68:28.98
From:	N 30:02.59	W 68:32.80	Tgt Trk: 0.0
To:	N 63:21.83	W 68:32.80	Tgt Vel: 0.0
			Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 243.5 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLU2A	RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -3.4 fps (s.d.= .7)
Ave Fil Vel -> -3.3 fps (s.d.= .5)

NML XMIT PWR	ANE BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 4172 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 5441 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.5			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 01:57:44
Y: 1874.0	L: 63.8 dB	End: 02:00:26
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	63412	0000F7B4h	CPA (UCT): 00:00:00
End:	90548	000161B4h	Alt: 0 ft (GPS)
			Lat: N 0:00:00
			Lon: E 0:00:00

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 29
Mission: DAY 4 PORTAGE MAINE

Time: 180:02:11:45
Pass 5
Req.# 119

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9916 ft s.d.=	4 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0
Slt. rng:	18340 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0
Look:	Right	St rng (ft):	16800	16800	16800	1680
Depr Ang:	25.0°	Near Rng Dep:	36.2°	36.2°	36.2°	36.2
Des. trk:	314.7°	Far Rng Dep:	17.5°	17.5°	17.5°	17.5
Start Sq:	90.0°	Atten (dB):	56.0	63.0	55.0	64.0
End Sq:	90.0°	RMS Video (%FS)	22.1	14.9	21.7	14.9

WAYPOINTS

Line_up:	N 46:31.16	W 68:13.39	Main Target:	STPET
Start:	N 46:39.62	W 68:25.73	Mocomp Point:	
End:	N 46:46.65	W 68:36.07	Lat:	N 46:44.99
			Long:	W 68:28.23
From:	N 33:59.35	W 54:18.52	Tgt Trk:	0.0
To:	N 56:41.11	W 90:12.04	Tgt Vel:	0.0
			Alt:	830.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd: Real	->	244.7 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTLU2A	RX Chirp Filename:	CRL1NOA	

Ave Ref Vel -> 1.0 fps (s.d.= .9)
Ave Fil Vel -> .8 fps (s.d.= .8)

NML XMIT PWR	ANE BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 5457 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 6725 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.8			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 02:11:45
Y: 1874.0	L: 63.8 dB	End: 02:14:28
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	107395	0001A383h	CPA (UCT):	00:00:00
End:	134728	00020E48h	Alt:	0 ft (GPS)
			Lat:	N 0:00: 0
			Lon:	E 0:00: 0

29 Jun 1995
Tape: E1418

Post-line Data Sheet
Line 1
Mission: DAY 4 PORTAGE MAINE

Time: 180:02:25:17
Pass 6
Req.# 5

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9737 ft s.d.=	4 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	1692
Depr Ang:	25.0°	Near Rng Dep:	35.1°	35.1°	35.1°	35.1
Des. trk:	10.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1
Start Sq:	90.0°	Atten (dB):	56.0	68.0	55.0	68.0
End Sq:	90.0°	RMS Video (%FS)	16.0	9.4	13.0	10.1

WAYPOINTS

Line_up:	N 46:27.53	W 68:37.06	Main Target: GW
Start:	N 46:39.34	W 68:34.06	Mocomp Point:
End:	N 46:49.18	W 68:31.53	Lat: N 46:43.81
			Long: W 68:29.03
From:	N 30:14.66	W 71:50.72	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 62:59.35	W 62:17.15	Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: SINGLE	Ave Gndspd: Real -> 249.8 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLR02A	RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.6 fps (s.d.= 1.2)
Ave Fil Vel -> -.5 fps (s.d.= .9)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°		
L: -70.0	Azimuth: 0.0°	Starting: 6740 ft	(1)
C: -70.0	Pitch: 0.0°	Ending: 8009 ft	(1)
P: 46.8			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 02:25:17
Y: 1874.0	L: 63.8 dB	End: 02:28:01
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 166097 000288D1h
End: 193574 0002F426h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1418

Post-line Data Sheet
Line 3
Mission: DAY 4 PORTAGE MAINE

Time: 180:02:36:16
Pass 7
Req.# 6

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9707 ft s.d.=	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	1692
Depr Ang:	25.0°	Near Rng Dep:	35.0°	35.0°	35.0°	35.0
Des. trk:	220.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1
Start Sq:	90.0°	Atten (dB):	56.0	64.0	55.0	64.0
End Sq:	90.0°	RMS Video (%FS)	16.0	10.8	12.9	12.8

WAYPOINTS

Line_up:	N 46:55.10	W 68:10.14	Main Target: GW
Start:	N 46:45.93	W 68:21.41	Mocomp Point:
End:	N 46:38.28	W 68:30.75	Lat: N 46:43.81
			Long: W 68:29.03
From:	N 57:58.34	W 48:11.39	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 33:07.28	W 81:07.71	Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 253.3 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLAU2A	RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -2.4 fps (s.d.= 1.1)
Ave Fil Vel -> -2.5 fps (s.d.= .9)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 8024 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 9272 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.8			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 02:36:16
Y: 1874.0	L: 63.8 dB	End: 02:38:57
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	218123	0003540Bh	CPA (UCT): 00:00:00
End:	245088	0003BD60h	Alt: 0 ft (GPS)
			Lat: N 0:00: 0
			Lon: E 0:00: 0

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Tape: E1298

Post-line Data Sheet
Line 5
Mission: DAY 4 PORTAGE MAINE

Time: 180:02:46:03
Pass 8
Req.# 7

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9719 ft s.d.=	2 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	35.1°	35.1°	35.1°	35.1°
Des. trk:	40.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1°
Start Sq:	90.0°	Atten (dB):	53.0	66.0	55.0	65.0
End Sq:	90.0°	RMS Video (%FS)	23.9	13.5	14.9	15.2

WAYPOINTS

Line_up:	N 46:32.46	W 68:47.79	Main Target: GW
Start:	N 46:41.67	W 68:36.63	Mocomp Point:
End:	N 46:49.33	W 68:27.28	Lat: N 46:43.81
			Long: W 68:29.03
From:	N 33:10.33	W 81:13.56	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 58:01.94	W 48:15.93	Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 248.8 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLAU2A	RX Chirp Filename: CRL1NOA

Ave Ref Vel -> 1.9 fps (s.d.= 1.2)
Ave Fil Vel -> 2.2 fps (s.d.= 1.1)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 201 ft	(2)
L: -70.0	Azimuth: 0.0°	Ending: 1442 ft	(2)
C: -70.0	Pitch: 0.0°		
P: 46.7			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 02:46:03
Y: 1874.0	L: 63.8 dB	End: 02:48:45
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	271600	000424F0h	CPA (UCT): 00:00:00
End:	298768	00048F10h	Alt: 0 ft (GPS)
			Lat: N 0:00: 0
			Lon: E 0:00: 0

29 Jun 1995
Tape: E1298

Post-line Data Sheet
Line 7
Mission: DAY 4 PORTAGE MAINE

Time: 180:02:56:30
Pass 9
Req.# 8

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9712 ft s.d.=	4 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	35.0°	35.0°	35.0°	35.0
Des. trk:	250.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1
Start Sq:	90.0°	Atten (dB):	53.0	64.0	54.0	65.0
End Sq:	90.0°	RMS Video (%FS)	34.2	14.8	29.3	14.9

WAYPOINTS

Line_up:	N 46:47.09	W 68:04.46	Main Target:	GW
Start:	N 46:43.03	W 68:20.88	Mocomp Point:	
End:	N 46:39.61	W 68:34.54	Lat:	N 46:43.81
			Long:	W 68:29.03
From:	N 49:51.67	W 43:51.06	Tgt Trk:	0.0
To:	N 39:02.73	W 88:42.69	Tgt Vel:	0.0
			Alt:	770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd:	Real	-> 251.0 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTLAU2A	RX Chirp Filename:	CRL1N0A	

Ave Ref Vel -> 4.9 fps (s.d.= 11.7)
Ave Fil Vel -> 4.7 fps (s.d.= 11.4)

NML XMIT PWR	ANE BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 1456 ft	(2)
L: -70.0	Azimuth: 0.0°	Ending: 2695 ft	(2)
C: -70.0	Pitch: 0.0°		
P: 46.7			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 02:56:30
Y: 1874.0	L: 63.8 dB	End: 02:59:11
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 323785 0004F0C9h
End: 350786 00055A42h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1298

Post-line Data Sheet
Line 9
Mission: DAY 4 PORTAGE MAINE

Time: 180:03:05:59
Pass 10
Req.# 9

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9708 ft s.d.=	2 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	1692
Depr Ang:	25.0°	Near Rng Dep:	35.0°	35.0°	35.0°	35.0°
Des. trk:	70.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1°
Start Sq:	90.0°	Atten (dB):	53.0	64.0	54.0	65.0
End Sq:	90.0°	RMS Video (%FS)	24.0	13.6	16.1	15.7

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:40.42	W 68:53.53
Start:	N 46:44.56	W 68:37.16
End:	N 46:47.98	W 68:23.50
From:	N 39:06.99	W 88:46.35
To:	N 49:56.65	W 43:51.27

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 247.0 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> 3.8 fps (s.d.= 2.9)
Ave Fil Vel -> 4.1 fps (s.d.= 2.6)

NML XMIT PWR

X: -70.0
L: -70.0
C: -70.0
P: -70.0

ANG BIAS

Elevation: 0.0°
Azimuth: 0.0°
Pitch: 0.0°

Tape Footage

Starting: 2709 ft (2)
Ending: 3972 ft (2)

Drive no.

Vel Bias

X: 2112.0
Y: 1874.0
Z: 5343.0

CAL Atten

X: 63.8 dB
L: 63.8 dB
C: 63.8 dB

LINE Map Time (UCT)

Start: 03:05:59
End: 03:08:48

Mocomp Counters

Start: 373964 0005B4CCh
End: 402298 0006237Ah

CPA (UCT): 00:00:00

Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Post-line Data Sheet
Line 11
Mission: DAY 4 PORTAGE MAINE

Time: 180:03:15:17
Pass 11
Req.# 10

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9723 ft s.d.=	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	16922
Depr Ang:	25.0°	Near Rng Dep:	35.1°	35.1°	35.1°	35.1°
Des. trk:	280.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1°
Start Sq:	90.0°	Atten (dB):	55.0	62.0	56.0	63.0
End Sq:	90.0°	RMS Video (%FS)	22.6	16.1	17.1	16.8

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:38.22	W 68:05.39
Start:	N 46:40.34	W 68:22.53
End:	N 46:42.08	W 68:36.85
From:	N 41:32.13	W 46:23.74
To:	N 47:00.19	W 92:52.08

Main Target: GW
Mocomp Point:
Lat: N 46:43.81
Long: W 68:29.03
Tgt Trk: 0.0 Tgt Vel: 0.0
Alt: 770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 248.6 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1NOA

Ave Ref Vel -> .4 fps (s.d.= 1.1)
Ave Fil Vel -> .1 fps (s.d.= 1.1)

NML XMIT PWR	ANG BIAS
X: -70.0	Elevation: 0.0°
L: -70.0	Azimuth: 0.0°
C: -70.0	Pitch: 0.0°
P: 46.7	

Tape Footage	Drive no.
Starting: 3986 ft	(2)
Ending: 5265 ft	(2)

Vel Bias	CAL Atten
X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

LINE Map Time (UCT)
Start: 03:15:17
End: 03:18:02

Mocomp Counters

Start: 420838 00066BE6h
End: 448478 0006D7DEh

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1298

Post-line Data Sheet
Line 13
Mission: DAY 4 PORTAGE MAINE

Time: 180:03:25:28
Pass 12
Req.# 11

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9702 ft s.d.=	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18460 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16922	16922	16922	1692
Depr Ang:	25.0°	Near Rng Dep:	35.0°	35.0°	35.0°	35.0°
Des. trk:	130.0°	Far Rng Dep:	17.1°	17.1°	17.1°	17.1°
Start Sq:	90.0°	Atten (dB):	54.0	62.0	53.0	63.0
End Sq:	90.0°	RMS Video (%FS)	24.1	13.7	21.6	17.2

WAYPOINTS

Line_up:	N 46:56.71	W 68:45.58	Main Target:	GW
Start:	N 46:49.02	W 68:32.15	Mocomp Point:	
End:	N 46:42.60	W 68:21.02	Lat:	N 46:43.81
			Long:	W 68:29.03
From:	N 55:30.95	W 91:09.53	Tgt Trk:	0.0
To:	N 34:51.42	W 52:57.15	Tgt Vel:	0.0
			Alt:	770.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd:	Real	-> 251.1 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTL1U2A	RX Chirp Filename:	CRL1N0A	

Ave Ref Vel -> -3.2 fps (s.d.= 1.2)
Ave Fil Vel -> -3.1 fps (s.d.= .9)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 5279 ft	(2)
L: -70.0	Azimuth: 0.0°	Ending: 6510 ft	(2)
C: -70.0	Pitch: 0.0°		
P: 46.7			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 03:25:28
Y: 1874.0	L: 63.8 dB	End: 03:28:08
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	473658	0007A3Ah	CPA (UCT):	00:00:00
End:	500516	0007A324h	Alt:	0 ft (GPS)
			Lat:	N 0:00: 0
			Lon:	E 0:00: 0

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Tape: E1298

Post-line Data Sheet
Line 15
Mission: DAY 4 PORTAGE MAINE

Time: 180:03:34:40
Pass 13
Req.# 12

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9744 ft s.d.=	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0
Slt. rng:	18340 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0
Look:	Right	St rng (ft):	16800	16800	16800	1680
Depr Ang:	25.0°	Near Rng Dep:	35.4°	35.4°	35.4°	35.4
Des. trk:	314.7°	Far Rng Dep:	17.2°	17.2°	17.2°	17.2
Start Sq:	90.0°	Atten (dB):	56.0	62.0	55.0	63.0
End Sq:	90.0°	RMS Video (%FS)	20.5	15.1	20.4	17.7

WAYPOINTS

Line_up:	N 46:31.16	W 68:13.39	Main Target:	STPET
Start:	N 46:39.62	W 68:25.73	Mocomp Point:	
End:	N 46:46.65	W 68:36.07	Lat:	N 46:44.99
			Long:	W 68:28.23
From:	N 33:59.35	W 54:18.52	Tgt Trk:	0.0
To:	N 56:41.11	W 90:12.04	Tgt Vel:	0.0
			Alt:	830.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)	
Swath width:	Single	Ave Gndspd:	Real	-> 251.3 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4	
Position Reference:	ON	GPS Vel/Pos Reference		
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft	
Range Gate Delta:	0.0 ft	Range Tracking is	OFF	
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF	
TX Chirp Filename:	CTLU2A	RX Chirp Filename:	CRL1N0A	

Ave Ref Vel -> -1.5 fps (s.d.= 3.7)
Ave Fil Vel -> -1.8 fps (s.d.= 3.7)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting:	6523 ft (2)
L: -70.0	Azimuth: 0.0°	Ending:	7770 ft (2)
C: -70.0	Pitch: 0.0°		
P: 46.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 03:34:40
Y: 1874.0	L: 63.8 dB	End: 03:37:21
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 517893 0007E705h
End: 544860 0008B05Ch

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1298

Post-line Data Sheet
Line 17
Mission: DAY 4 PORTAGE MAINE

Time: 180:03:51:00
Pass 14
Req.# 13

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9737 ft s.d.=	4 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	18400 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	16861	16861	16861	16861
Depr Ang:	25.0°	Near Rng Dep:	35.3°	35.3°	35.3°	35.3°
Des. trk:	276.0°	Far Rng Dep:	17.2°	17.2°	17.2°	17.2°
Start Sq:	90.0°	Atten (dB):	56.0	62.0	55.0	63.0
End Sq:	90.0°	RMS Video (%FS)	18.5	14.3	15.6	18.2

WAYPOINTS

Line_up:	N 46:39.86	W 68:04.82	Main Target: CALCS
Start:	N 46:41.15	W 68:22.15	Mocomp Point:
End:	N 46:42.20	W 68:36.61	Lat: N 46:44.29
			Long: W 68:28.98
From:	N 42:35.56	W 45:46.11	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 45:52.85	W 92:35.25	Alt: 800.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 251.3 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLAU2A	RX Chirp Filename: CRL1NOA

Ave Ref Vel -> -6.7 fps (s.d.= 11.9)
Ave Fil Vel -> -7.0 fps (s.d.= 11.5)

NML XMIT PWR	ANE BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 7784 ft	(2)
L: -70.0	Azimuth: 0.0°	Ending: 9064 ft	(2)
C: -70.0	Pitch: 0.0°		
P: 47.0			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 03:51:00
Y: 1874.0	L: 63.8 dB	End: 03:53:45
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	569215	0008AF7Fh	CPA (UCT): 00:00:00
End:	596875	00091B8Bh	Alt: 0 ft (GPS)
			Lat: N 0:00:0
			Lon: E 0:00:0

29 Jun 1995
Tape: E1299

Post-line Data Sheet
Line 19
Mission: DAY 4 PORTAGE MAINE

Time: 180:04:05:18
Pass 15
Req.# 1

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9746 ft s.d.=	4 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	19100 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	17566	17566	17566	17566
Depr Ang:	25.0°	Near Rng Dep:	33.7°	33.7°	33.7°	33.7°
Des. trk:	0.0°	Far Rng Dep:	16.8°	16.8°	16.8°	16.8°
Start Sq:	90.0°	Atten (dB):	56.0	67.0	55.0	68.0
End Sq:	90.0°	RMS Video (%FS)	16.5	10.0	14.5	10.3

WAYPOINTS

Line up:	N 46:23.94	W 68:04.66	Main Target:	PI2
Start:	N 46:35.94	W 68:04.66	Mocomp Point:	
End:	N 46:45.94	W 68:04.66	Lat:	N 46:40.94
			Long:	W 68:00.71
From:	N 29:59.39	W 68:04.66	Tgt Trk:	0.0
To:	N 63:18.65	W 68:04.66	Tgt Vel:	0.0
			Alt:	450.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec	
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)		
Swath width:	Single	Ave Gndspd:	Real	->	247.7 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4		
Position Reference:	ON	GPS Vel/Pos Reference			
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft		
Range Gate Delta:	0.0 ft	Range Tracking is	OFF		
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF		
TX Chirp Filename:	CTLU2A	RX Chirp Filename:	CRL1NOA		

Ave Ref Vel -> .5 fps (s.d.= 1.8)
Ave Fil Vel -> .5 fps (s.d.= 1.7)

NML XMIT PWR	ANE BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 200 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 1426 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 04:05:18
Y: 1874.0	L: 63.8 dB	End: 04:07:53
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start:	618888	00097188h	CPA (UCT):	00:00:00
End:	644889	00090719h	Alt:	0 ft (GPS)
			Lat:	N 0:00: 0
			Lon:	E 0:00: 0

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Tape: E1299

Post-line Data Sheet
Line 21
Mission: DAY 4 PORTAGE MAINE

Time: 180:04:14:30
Pass 16
Req.# 2

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9703 ft s.d.=	2 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	19100 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	17566	17566	17566	17566
Depr Ang:	25.0°	Near Rng Dep:	33.5°	33.5°	33.5°	33.5°
Des. trk:	180.0°	Far Rng Dep:	16.7°	16.7°	16.7°	16.7°
Start Sq:	90.0°	Atten (dB):	54.0	63.0	53.0	64.0
End Sq:	90.0°	RMS Video (%FS)	20.6	13.5	19.0	13.4

WAYPOINTS

Line_up:	N 46:57.93	W 67:56.75	Main Target:	PI2
Start:	N 46:45.94	W 67:56.75	Mocomp Point:	
End:	N 46:35.94	W 67:56.75	Lat:	N 46:40.94
			Long:	W 68:00.71
From:	N 63:18.65	W 67:56.75	Tgt Trk:	0.0
To:	N 29:59.39	W 67:56.75	Tgt Vel:	0.0
			Alt:	450.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec	
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)		
Swath width:	Single	Ave Gndspd:	Real	->	247.2 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4		
Position Reference:	ON	GPS Vel/Pos Reference			
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft		
Range Gate Delta:	0.0 ft	Range Tracking is	OFF		
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF		
TX Chirp Filename:	CTL02A	RX Chirp Filename:	CRL1N0A		

Ave Ref Vel -> -3.5 fps (s.d.= .8)
Ave Fil Vel -> -3.5 fps (s.d.= .6)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting:	1440 ft (1)
L: -70.0	Azimuth: 0.0°	Ending:	2710 ft (1)
C: -70.0	Pitch: 0.0°		
P: 46.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 04:14:30
Y: 1874.0	L: 63.8 dB	End: 04:17:14
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 662264 000A:AF8h
End: 671900 000A:09Ch

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

29 Jun 1995
Tape: E1299

Post-line Data Sheet
Line 21
Mission: DAY 4 PORTAGE MAINE

Time: 180:04:15:27
Pass 17
Req.# 2

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9703 ft s.d.=	1 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0
Slt. rng:	19100 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0
Look:	Right	St rng (ft):	17566	17566	17566	1756
Depr Ang:	25.0°	Near Rng Dep:	33.5°	33.5°	33.5°	33.5
Des. trk:	180.0°	Far Rng Dep:	16.7°	16.7°	16.7°	16.7
Start Sq:	90.0°	Atten (dB):	57.0	63.0	56.0	64.0
End Sq:	90.0°	RMS Video (%FS)	13.6	11.2	11.7	12.1

WAYPOINTS

Line_up:	N 46:57.93	W 67:56.75	Main Target: PI2
Start:	N 46:45.94	W 67:56.75	Mocomp Point:
End:	N 46:35.94	W 67:56.75	Lat: N 46:40.94
			Long: W 68:00.71
From:	N 63:18.65	W 67:56.75	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 29:59.39	W 67:56.75	Alt: 450.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 245.8 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLMU2A	RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -2.9 fps (s.d.= 6.5)
Ave Fil Vel -> -2.6 fps (s.d.= 6.5)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°		
L: -70.0	Azimuth: 0.0°	Starting: 1440 ft	(1)
C: -70.0	Pitch: 0.0°	Ending: 2710 ft	(1)
P: 46.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 04:15:27
Y: 1874.0	L: 63.8 dB	End: 04:17:14
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 671900 000A409Ch
End: 689734 000A8646h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1299

Post-line Data Sheet
Line 23
Mission: DAY 4 PORTAGE MAINE

Time: 180:04:23:45
Pass 18
Req.# 3

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9746 ft s.d. =	3 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	19100 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	17566	17566	17566	17566
Depr Ang:	25.0°	Near Rng Dep:	33.7°	33.7°	33.7°	33.7°
Des. trk:	0.0°	Far Rng Dep:	16.8°	16.8°	16.8°	16.8°
Start Sq:	90.0°	Atten (dB):	57.0	68.0	56.0	69.0
End Sq:	90.0°	RMS Video (%FS)	15.5	8.6	13.2	8.8

WAYPOINTS

Line up:	N 46:23.94	W 68:05.04	Main Target: PI3
Start:	N 46:35.94	W 68:05.04	Mocomp Point:
End:	N 46:45.94	W 68:05.04	Lat: N 46:40.94
			Long: W 68:01.09
From:	N 29:59.39	W 68:05.04	Tgt Trk: 0.0 Tgt Vel: 0.0
To:	N 63:18.65	W 68:05.04	Alt: 450.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1	Filter damping is Hi -> 10 sec
Resolution: N/A	PRF Factor is FAST (262.5 kts)
Swath width: Single	Ave Gndspd: Real -> 252.6 kts
RMS Time Constant: 2^7	Mocomp Off for Chnl 1, 2, 3, 4
Position Reference: ON	GPS Vel/Pos Reference
Atten. Tracking: OFF	Adj Gnd Scene: 5000.0 ft
Range Gate Delta: 0.0 ft	Range Tracking is OFF
Azimuth Presum Rate: Presum6	Clutterlock Reference: OFF
TX Chirp Filename: CTLU2A	RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -.2 fps (s.d.= 1.8)
Ave Fil Vel -> -.2 fps (s.d.= 1.7)

NML XMIT PWR	ANG BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 2725 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 3959 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 04:23:45
Y: 1874.0	L: 63.8 dB	End: 04:26:21
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 700079 000AAEAFh
End: 726246 000BA4E6h

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1299

Post-line Data Sheet
Line 25
Mission: DAY 4 PORTAGE MAINE

Time: 180:04:33:15
Pass 19
Req.# 4

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9708 ft s.d.=	2 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	19100 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	17566	17566	17566	1756
Depr Ang:	25.0°	Near Rng Dep:	33.5°	33.5°	33.5°	33.5°
Des. trk:	180.0°	Far Rng Dep:	16.7°	16.7°	16.7°	16.7°
Start Sq:	90.0°	Atten (dB):	56.0	63.0	55.0	64.0
End Sq:	90.0°	RMS Video (%FS)	19.9	13.6	19.4	13.6

WAYPOINTS

	Latitude	Longitude
Line_up:	N 46:57.93	W 67:57.13
Start:	N 46:45.94	W 67:57.13
End:	N 46:35.94	W 67:57.13
From:	N 63:18.65	W 67:57.13
To:	N 29:59.39	W 67:57.13

Main Target: PI3

Mocomp Point:

Lat: N 46:40.94

Long: W 68:01.09

Tgt Trk: 0.0 Tgt Vel: 0.0

Alt: 450.0 ft

RADAR PARAMETERS - for UWB

RTP Channel: 1
Resolution: N/A
Swath width: Single
RMS Time Constant: 2^7
Position Reference: ON
Atten. Tracking: OFF
Range Gate Delta: 0.0 ft
Azimuth Presum Rate: Presum6
TX Chirp Filename: CTLU2A

Filter damping is Hi -> 10 sec
PRF Factor is FAST (262.5 kts)
Ave Gndspd: Real -> 251.8 kts
Mocomp Off for Chnl 1, 2, 3, 4
GPS Vel/Pos Reference
Adj Gnd Scene: 5000.0 ft
Range Tracking is OFF
Clutterlock Reference: OFF
RX Chirp Filename: CRL1N0A

Ave Ref Vel -> -2.9 fps (s.d.= .8)
Ave Fil Vel -> -3.0 fps (s.d.= .6)

NML XMIT PWR

ANG BIAS

Tape Footage

Drive no.

X: -70.0	Elevation:	0.0°
L: -70.0	Azimuth:	0.0°
C: -70.0	Pitch:	0.0°
P: 47.0		

Starting:	3973 ft	(1)
Ending:	5225 ft	(1)

Vel Bias

CAL Atten

LINE Map Time (UCT)

X: 2112.0	X: 63.8 dB
Y: 1874.0	L: 63.8 dB
Z: 5343.0	C: 63.8 dB

Start: 04:33:15
End: 04:35:58

Mocomp Counters

CPA (UCT): 00:00:00

Start: 741091 000B4EE3h
End: 750259 000B72B3h

Alt: 0 ft (GPS)
Lat: N 0:00: 0
Lon: E 0:00: 0

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Tape: E1299

Post-line Data Sheet
Line 25
Mission: DAY 4 PORTAGE MAINE

Time: 180:04:34:09
Pass 20
Req.# 4

AIRCRAFT & CHANNEL DATA

Altitude			CH 1	CH 2	CH 3	CH 4
Desired:	10000 ft	Wave/Pol.:	p-VV	p-VH	p-HV	p-HH
Baro:	9707 ft s.d.=	1 Swath Ctr Ang:	30.0°	30.0°	30.0°	30.0°
Slt. rng:	19100 ft	Tgt Dep Ang:	30.0°	30.0°	30.0°	30.0°
Look:	Right	St rng (ft):	17566	17566	17566	17566
Depr Ang:	25.0°	Near Rng Dep:	33.5°	33.5°	33.5°	33.5°
Des. trk:	180.0°	Far Rng Dep:	16.7°	16.7°	16.7°	16.7°
Start Sq:	90.0°	Atten (dB):	59.0	63.0	58.0	64.0
End Sq:	90.0°	RMS Video (%FS)	11.3	10.7	9.9	11.7

WAYPOINTS

Line_up:	N 46:57.93	W 67:57.13	Main Target:	PI3
Start:	N 46:45.94	W 67:57.13	Mocomp Point:	
End:	N 46:35.94	W 67:57.13	Lat:	N 46:40.94
			Long:	W 68:01.09
From:	N 63:18.65	W 67:57.13	Tgt Trk:	0.0
To:	N 29:59.39	W 67:57.13	Tgt Vel:	0.0
			Alt:	450.0 ft

RADAR PARAMETERS - for UWB

RTP Channel:	1	Filter damping is Hi	->	10 sec	
Resolution:	N/A	PRF Factor is FAST	(262.5 kts)		
Swath width:	Single	Ave Gndspd:	Real	->	250.9 kts
RMS Time Constant:	2^7	Mocomp Off for Chnl	1, 2, 3, 4		
Position Reference:	ON	GPS Vel/Pos Reference			
Atten. Tracking:	OFF	Adj Gnd Scene:	5000.0 ft		
Range Gate Delta:	0.0 ft	Range Tracking is	OFF		
Azimuth Presum Rate:	Presum6	Clutterlock Reference:	OFF		
TX Chirp Filename:	CTL02A	RX Chirp Filename:	CRL1N0A		

Ave Ref Vel -> .6 fps (s.d.= 4.5)
Ave Fil Vel -> .7 fps (s.d.= 4.3)

NML XMIT PWR	ANT BIAS	Tape Footage	Drive no.
X: -70.0	Elevation: 0.0°	Starting: 3973 ft	(1)
L: -70.0	Azimuth: 0.0°	Ending: 5225 ft	(1)
C: -70.0	Pitch: 0.0°		
P: 46.9			

Vel Bias	CAL Atten	LINE Map Time (UCT)
X: 2112.0	X: 63.8 dB	Start: 04:34:09
Y: 1874.0	L: 63.8 dB	End: 04:35:58
Z: 5343.0	C: 63.8 dB	

Mocomp Counters

Start: 750259 000B72B3h
End: 768445 000B39BDh

CPA (UCT): 00:00:00
Alt: 0 ft (GPS)
Lat: N 0:00:00
Lon: E 0:00:00